C) AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings of claims in the Application.

What is claimed is:

1. (currently amended) A method for producing a coating for applying to parts used in combustive gas atmospheres, the process comprising:

providing a chamber having an inside surface, the chamber supporting at least one stationary tray, each tray having at least two surfaces;

applying at least one layer of a first material having a high index of radiative reflectance to the at least ~~one surface~~ two surfaces, not including the inside surface;

applying at least one layer of a second material having a low index of radiative reflectance over the at least one layer of the first material such that the combined layers of first and second material meet a predetermined spectral reflectance profile;

exposing the combined layers to a heating cycle of predetermined temperature and duration to release the combined layers from the at least ~~one surface~~ two surfaces; and

collecting the combined layers.

2. (currently amended) The method of claim 1, wherein the at least ~~one surface~~ two surfaces has a thermal expansion coefficient sufficiently different from the thermal expansion coefficient of the combined layers to substantially release the combined layers from the at least one surface during the heating cycle.

3. (currently amended) The method of claim 1, wherein the step of applying the at least one layer of the first material having a high index of radiative reflectance includes applying the at least one layer of the first material having a high index of radiative reflectance selected from the group consisting of TiO_2, ZrO_2, Ta_2O_5, HfO_2, NbO, and Y_2O_5.

4. (currently amended) The method of claim 1, wherein the step of applying the at least one layer of the second material having a low index of radiative reflectance includes applying the

at least one layer of the second material having a low index of radiative reflectance selected from the group consisting of SiO_2, Al_2O_3, MgF_2, and BaF_2.

5. (currently amended) The method of claim 1, wherein the ~~at least one surface is a~~ plurality of trays are spaced at a predetermined arrangement.

6. (currently amended) The method of claim [[1]] 5, wherein the plurality of trays comprises a total surface area of at least about 100,000 square inches.

7. (currently amended) The method of claim 1, wherein the step of applying the at least one layer of the first material having a high index of radiative reflectance to the at least one surface includes the step of applying the at least one layer of the first material selected from the group consisting of evaporation, sputtering, physical vapor deposition or chemical vapor deposition or combination thereof.

8. (currently amended) The method of claim 1, wherein the step of applying the at least one layer of the second material having a low index of radiative reflectance over the at least one layer of the first material includes the step of applying the at least one layer of the second material selected from the group consisting of evaporation, sputtering, physical vapor deposition or chemical vapor deposition or combination thereof.

9. (currently amended) The method of claim 1, wherein the at least ~~one surface is~~ two surfaces are comprised of compatible high temperature metals.

10. (currently amended) The method of claim 1, wherein the at least ~~one surface is~~ two surfaces are comprised of compatible salts.

11. (currently amended) The method of claim 1, wherein the at least ~~one surface is~~ two surfaces are comprised of compatible etchable metals.

12. (original) The method of claim 11, wherein the etchable metals are aluminum and gold.

13. (caneled)

14. (currently amended) A method for producing a coating for applying to a component surface, the process comprising:

providing a chamber having an inside surface, the chamber supporting at least one tray, each tray having at least two surfaces;

applying a release layer to the at least ~~one surface~~ two surfaces, not including the inside surface;

applying at least one layer of a first material having a high index of radiative reflectance over the release layer;

applying at least one layer of a second material having a low index of radiative reflectance over the at least one layer of the first material such that the combined layers of first and second material meet a predetermined spectral reflectance profile;

exposing the combined layers to a heating cycle of predetermined temperature and duration to remove the release layer to release the combined layers from the at least one surface; and

collecting the combined layers.

15. (original) The method of claim 14, wherein the step of applying the at least one layer of the first material having a high index of radiative reflectance over the release layer and the step of applying the at least one layer of a second material having a low index of radiative reflectance over the at least one layer of the first material such that the combined layers of first and second material meet a predetermined spectral reflectance profile, wherein the predetermined spectral reflectance profile enhances radiative heat reflection away from the component.

16. (original) The method of claim 15, wherein the predetermined spectral reflectance profile simultaneously permits a release of radiative energy from the component.

17. (original) The method of claim 14, wherein the step of applying the at least one layer of the first material having a high index of radiative reflectance over the release layer and the step of applying the at least one layer of a second material having a low index of radiative reflectance over the at least one layer of the first material such that the combined layers of first and second material meet a predetermined spectral reflectance profile, wherein the predetermined spectral reflectance profile retains radiative energy received by the component.

18. (original) The method of claim 17, wherein the predetermined spectral reflectance profile retains radiative energy released by the component.

19. (original) The method of claim 14, wherein the step of applying the at least one layer of the first material having a high index of radiative reflectance over the release layer and the step of applying the at least one layer of a second material having a low index of radiative reflectance over the at least one layer of the first material such that the combined layers of first and second material meet a predetermined spectral reflectance profile, wherein the predetermined spectral reflectance profile has reflective properties in the visible spectrum.

20. (original) The method of claim 19, wherein the predetermined spectral reflectance profile having reflective properties in the visible spectrum for use as a decorative paint.

21. (original) The method of claim 19, wherein the predetermined spectral reflectance profile having reflective properties in the visible spectrum for use as a paint providing improved visibility.